

White Paper

**BUILDING CPP-627 DEACTIVATION, DECONTAMINATION,
AND DECOMMISSIONING CAN BE PERFORMED UNDER
THE DEPARTMENT OF ENERGY'S CERCLA
REMOVAL ACTION AUTHORITY**

**I. The Department of Energy (DOE) has authority to conduct
CERCLA removal actions, including "time-critical
removal actions"**

Removal action authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) § 104 is delegated to DOE by Presidential Executive Order 12580, § 2(d), which gives the Secretary of Energy the primary authority to perform removal actions to respond to releases of hazardous substances that have occurred at DOE facilities. The CERCLA National Contingency Plan (NCP) regulation implementing CERCLA (40 CFR 300) recognizes that, in such cases, "DOE will be the lead agency." (See 40 CFR §300.5 for definition of "lead agency.")

The lead agency, in this case DOE, undertakes an evaluation under authority of 40 CFR § 300.410 to determine whether a removal action is necessary due to a release or threat of release of hazardous substances. When DOE determines that there is "a threat to public health . . . or the environment," DOE "may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release." (40 CFR § 300.415(b)(1))

If DOE "determines that a removal action is appropriate, action shall . . . begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health." (40 CFR § 300.415(b)(3)) The NCP specifies that removal actions should be conducted with as little delay as possible and does not favor delaying the planning or execution of removal actions any longer than is necessary.

"Whenever a planning period of at least six months exists before on-site activities must be initiated," then the lead agency is expected to also "conduct an engineering evaluation/cost analysis [EE/CA] or its equivalent." (40 CFR § 300.415(b)(4)(i)) Note that the NCP does not require or even prefer a 6-month or longer planning period, nor does it prefer that an EE/CA be prepared. The requirement to prepare an EE/CA is triggered simply by the lead agency (DOE) determining that it will need to take over 6 months to plan the removal action before onsite execution can begin. Thus, if DOE determines that less than 6 months of planning time will be sufficient to prepare for execution of the removal action, then there is no regulatory requirement to prepare an EE/CA document. When a planning period greater than 6 months has been chosen, the NCP also requires that the lead agency prepare a "sampling and analysis plan" to be approved by the Environmental Protection Agency (EPA). (40 CFR § 300.414(b)(4)(ii))

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In various guidance documents, removal actions that are initiated with less than 6 months of planning have been labeled “time critical” while those with planning periods longer than 6 months are termed “non-time critical.” These labels do not reflect any additional element of “criticality” that is needed to justify an earlier removal action. Again, the NCP specifies that removal actions should always “begin as soon as possible.” If the lead agency has determined that a removal action is appropriate, *there is no requirement that additional justification be provided in order to expedite the removal action.* To the contrary, to justify a “non-time critical removal action,” the lead agency must first make a specific determination that its planning process is going to take longer than 6 months. There is no preference in the NCP for longer planning periods. It is simply the case that, if the longer time for planning is available, then additional documentation and review by EPA and the public should be included in that planning.

While the NCP requires that an Administrative Record and a Community Relations Plan be established whenever a removal action is being initiated (40 CFR § 300.415(n)), in the case of the Idaho National Engineering and Environmental Laboratory (INEEL) those activities have long since been in existence, in great detail, and need not be reinitiated for just one response action. When a “time critical” removal action is being planned, public notice need not be made until 60 days after “initiation of on-site removal activity.” In the case of a “non-time critical” removal action, the final EE/CA is to be published for 30 days of public comment. In both cases, the document that will be placed in the Administrative Record to record the determination of the lead agency on how it will execute the removal action has been labeled in EPA guidance as the “Action Memorandum.”

II. A time critical removal action is an appropriate process for conducting a DD&D activity.

DOE and EPA have adopted a “Policy on Decommissioning of Department of Energy Facilities Under the Comprehensive Environmental Response, Compensation, and Liability Act” through a Memorandum of Agreement (MOA) that both agencies signed on May 22, 1995. The MOA reaffirms the authority of DOE to use its removal action authority to perform deactivation, decontamination, and decommissioning (DD&D) of facilities. The MOA states that DD&D will be conducted using a non-time critical removal action process, “when appropriate.”

However, the policy does not make non-time critical removal actions the exclusive process for facility DD&D. Certainly, DOE considers that it may, under appropriate circumstances, continue its prior methodology of planning a DD&D and analyzing the environmental impacts of that process in accordance with the National Environmental Policy Act (NEPA), such as when the structure does not contain hazardous substances in quantities that would be reportable (under CERCLA § 103) if they were released to the environment during DD&D.

By the same token, another situation where use of a non-time critical removal action may not be appropriate is when DOE determines that it is more appropriate to perform the

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DD&D through a removal action that has a planning period of less than 6 months, i.e., a "time critical removal action." The 1995 MOA affirms DOE's authority to conduct DD&D using its removal action authority and does not in any way diminish DOE's delegated presidential authority to conduct removal actions under more expeditious planning processes "when appropriate." Since EPA did not grant DOE its removal action authority, it cannot remove it or limit its exercise. As noted above, any set of circumstance that would constitute a "threat of release" sufficient to justify a "non-time critical removal action" is also fully sufficient to justify a more expeditious "time critical removal action"; and the NCP states that the "time critical removal action" is preferred because any removal action should be conducted "as soon as possible."

III. The CPP-627 facility presents a "threat of release" of hazardous substances, which justifies DOE undertaking a removal action, including a "time critical" removal action.

Building CPP-627 is part of the Fuel Reprocessing Complex (FRC), which reprocessed spent nuclear fuel. CPP-627 was constructed in 1955 to house analytical, experimental, and decontamination facilities. While active use of the building has ceased, the building still contains unknown quantities of various radiological and chemical hazardous substances; and the structure is aging and continues to degrade more rapidly each year. These hazardous substances include various radionuclides, lead, mercury, used oil, asbestos, cadmium, chromium, and chemical residues. Due to deterioration of the building, failure to take action to remove these hazardous substances may result in the release of hazardous substances into the environment, which would be a substantial threat.

More detailed descriptions of the potential releases can be found in the *Process Description and Operating History for the CPP-601/-640/-627 Fuel Reprocessing Complex at the Idaho National Engineering and Environmental Laboratory* (INEEL/EXT-99-00400). These include the following:

- The northern third of the building housed analytical facilities. The Remote Analytic Facility (RAF), consisting of two lines of shielded gloveboxes for remote sample preparation and analysis, was on the ground floor. The "Old Shift Laboratory" (OSL), on the second floor, provided bench and hood space for chemical analysis. Analysis was performed on nuclear reactor fuel.

Access to the two lines of gloveboxes in the RAF is restricted because they contain dangerous hazardous substances, including high levels of radioactivity, residual chemical contamination from the process used to dissolve nuclear fuel, and about 120 tons of radiologically contaminated shielding made of lead (a toxic metal) in various shapes and sizes. The OSL contained gloveboxes and fume hoods to perform analysis of samples with low to moderate radioactivity, and still remains highly contaminated with radionuclides and hazardous constituents similar to those in the RAF.

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- The middle third of Building CPP-627 was a high bay decontamination facility, providing space for water and chemical cleaning of radiologically contaminated equipment. In 1980, the decontamination facility was removed and the area was rebuilt into the Emission Spectroscopy Laboratory (ESL) and the Decontamination and Development Laboratory (DDL). The second story provided a fan and filter loft for handling off-gas from some radioactively contaminated portions of Building CPP-627.
- The southern third of Building CPP-627 contained two experimental facilities, the Hot Chemistry Laboratory (HCL) and the Multi-Curie Cell (MCC). The HCL consisted of lab benches, hoods, and shielded gloveboxes. The MCC was designed for experiments using fully irradiated fuel (including transuranic elements such as plutonium). Both the HCL and MCC were used for the Custom Fuel Dissolution process until 1992. All operational use of Building CPP-627 ceased in 1997.

The MCC possessed a direct buried line, routing uranium solutions to the CPP-601 uranium salvage system. The HCL contained gloveboxes and hoods for experiments using radioactive and chemical substances. Liquid wastes from processes in the HCL and other parts of Building CPP-627 were routed to the adjacent Building (CPP-601) via buried pipes. These pipelines lacked any secondary containment that would capture leaking wastes. No specific releases have yet been identified, but, given the problems with similar pipelines in nearby structures, a release may have already occurred or may occur during DD&D.

Considerable radiological and hazardous material contamination remains in the building's ventilation ducting and high-efficiency particulate air filter banks. Repairs had to be made to the roof over the second floor OSL, because previous leaks of precipitation had caused hazardous substances to migrate within the building.

Because releases will certainly occur if no action is taken at Building CPP-627 and because releases may occur during the process of locating and collecting hazardous substances out of the structure, a "threat of release" justifies a removal action in the DD&D of this building under DOE's removal action authority. While a "non-time critical" removal action is one way to perform DD&D of structures, the option of performing a more expeditious "time-critical" removal action is available on the same authority and the same conditions, given a planning period of less than 6 months.

In this instance, funds that can be used in the current fiscal year (FY-04) to accomplish Building CPP-627 DD&D may not be available next year. Since the threat of release increases each year as the building deteriorates, an effort to expedite the planning process so that a removal action may be completed by January 2005, and thus be a "time critical" removal action, is consistent with the direction of the NCP to take action "as soon as possible" to prevent or mitigate a release of hazardous substances.

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IV. The incomplete Environmental Impact Statement does not bar performance of DD&D through a removal action.

Over 2 years ago, an Environmental Impact Statement (EIS) was prepared that analyzed the environmental effects of a proposed action for the DD&D of both CPP-627 and two adjacent buildings. The EIS proceeded to the point of DOE issuing a draft Record of Decision (ROD), but DOE has not issued a final ROD since then.

Until a Federal agency issues a ROD, the EIS is incomplete, the National Environmental Policy Act of 1969 has not been satisfied, and the proposed action cannot go forward in reliance upon the findings of that EIS. By the same token, since the incomplete EIS has no legal force or effect, it does not prevent alternative actions from being examined or adopted, if those alternative actions are in accordance with applicable law.

The long-standing official policy of DOE, which is consistent with the policy of EPA and the Department of Justice, is that the usual requirement of NEPA, for Federal agencies to prepare an EIS for significant proposed actions, does not apply to Federal agency actions undertaken under the authority of the later-enacted CERCLA statute (1980 and 1986). While the goal of NEPA is to protect the environment by requiring study prior to commencement of significant Federal actions, the goal of CERCLA is to protect the environment against existing hazardous substances that already threaten it by tasking Federal agencies to undertake expeditious action to "remove" or "remediate" those hazards.

A removal action that is undertaken in accordance with CERCLA and its NCP regulation can lawfully proceed without regard to NEPA documentation. That is even more the case when the NEPA documentation is incomplete because it lacks a decision and, thus, has no legal force or effect. A removal action can be performed at Building CPP-627 without regard for the prior efforts toward preparation of an EIS.

We also note that a summary NEPA categorical exclusion (CX) document has been prepared for the proposed action of inactivating the CPP-627 building in order to decrease maintenance responsibilities, costs, and the risk of hazards related to utility service, such as fires or flooding. A CX documents that a proposed action falls within the boundaries of Federal agency activities that were previously determined, through a regulation, to not have a significant impact on the human environment, and, therefore, do not trigger the need for any further analysis under NEPA. The inactivation has independent utility from any subsequent DD&D and does not affect the ability of DOE to choose to DD&D Building CPP-627 through a removal action.